

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed November 1, 2007. At the time of the Final Office Action, Claims 1- 5, 10-14, and 58-65 were pending in this Application. Claims 1-5, 10-14, and 58-65 were rejected. Applicant respectfully requests reconsideration and favorable action in this case.

Rejections under 35 U.S.C. §103

Claims 1-4, 10-13, and 58-61 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,866,045 issued to Frederic Maillard *et al.* (“*Maillard*”) in view of non-patent article entitled “Proton Magnetic Resonance Studies of Ultraviolet-Irradiated Apurinic Acid,” Nucleic Acids Res. 1974; 1(8) 999-1005 by Ronald O. Rahn *et al.* (“*Rahn*”) and non-patent document entitled “Mechanical Properties of DNA,” wikipedia.org, 3/14/2007 (“*Mechanical Properties of DNA*”). Claims 5 and 14 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Maillard*, *Rahn*, and wikipedia.org, 3/14/2007 (*Mechanical Properties of DNA*), as applied to Claims 1 and 10, in further view of admitted prior art. Claims 62-65 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Maillard*, *Rahn*, and wikipedia.org, 3/14/2007 (*Mechanical Properties of DNA*), as applied to Claims 1 and 10, in further view of U.S. Patent 6,027,890 issued to Jeffrey Van Ness *et al.* (“*Ness*”). Applicant respectfully traverses and submits the cited art combinations, even if proper, which Applicant does not concede, do not render the claimed embodiment of the invention obvious.

In order to establish a *prima facie* case of obviousness, the references cited by the Examiner must be prior art and disclose all claimed limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Furthermore, according to § 2143 of the Manual of Patent Examining Procedure, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally,

the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

First, and in reference to the Examiner's 103 rejection of Claims 1-4, 10 - 13 and 58 - 61 relying upon a "3/14/2007" wikipedia.org reference, the Applicant submits such a reference is clearly not prior art because it is dated "3/14/2007" and the filing date of the present application is July 24, 2003. Since the Examiner's 103 rejection of Claims 1-4, 10 - 13, and 58 - 61 relies upon a "3/14/2007 wikipedia.org" reference, Applicant requests withdrawal of the rejection.

Second, the Applicant objects to the Examiner's citation to and reliance upon subject matter found in "wikipedia.org." As is well known now, the information posted on "wikipedia.org" is not reliable and can be modified by anyone at any time. Since the Examiner's 103 rejection of Claims 1-4, 10 - 13, and 58 - 61 relies upon a "wikipedia.org" reference, Applicant requests withdrawal of the rejection.

Lastly, independent Claims 1 and 10 (and thus, their dependents) each require "a carcinogen-reducing amount of apurinic acid" and none of the art cited by the Examiner teaches or suggests the utilization of "a carcinogen-reducing amount of apurinic acid" as claimed. Withdrawal of the rejection is requested on this additional ground.

The Examiner asserts (1) apurinic acid is "inherently a nucleic acid" (page 2), (2) apurinic acid is a "well-known DNA derivative," (page 2) and thus, (3) *Maillard*, which allegedly discloses the use of "DNA" and "DNA derivatives," suggests, in combination with the **3/14/2007 wikipedia.org reference** and *Rahn*, the claimed subject matter (pages 3 - 4). First, Applicant disagrees with the Examiner, "apurinic acid" is not a "nucleic acid," but is a polymeric pyridamic acid. Second, "apurinic acid" is not a "derivative" of DNA. In chemistry, a derivative is a compound that is formed from a similar compound if one atom is replaced with another atom or group of atoms. More specifically, in relation to the art at issue, the term "derivative" refers primarily to peptides and proteins containing chemical groups that do not normally belong to the peptide or protein. Such "derivatives" are obtained by chemical

modification of specific amino acid residues with an organic derivatizing agent, known to the persons skilled in the art, that is capable of reacting with selected side chains or terminal residues. Apurinic acid may be produced by a variety of methods, e.g., including hydrosylation of DNA. Apurinic acid that is formed in this manner does not relate to DNA in either structure, function, or physical properties. Consequently, to suggest apurinic acid is a "derivative" of DNA, is like saying CO₂ is a derivative of benzene. Thus, Applicants request withdrawal of the rejection.

In relation to Claims 5 and 14, the Examiner cites to and relies upon the Applicant's teachings found in the Detailed Description of the Invention section of the specification on page 9, lines 8-9 of the present application. The Applicant does not "admit" the differences as cited but the Examiner, the Applicant actually teaches the differences as part of his invention. Consequently, Applicant submits the Examiner's citation to and reliance upon the Applicant's description of his own invention to reject the present claims is improper. Withdrawal of the rejection of Claims 5 and 14 is requested based upon the above grounds relating to Claims 1 and 10, and the additional ground stated above.

Claims 62 - 65 were rejected on the same improper grounds as Claims 1 and 10 and thus, Applicant incorporates by reference the above comments here regarding the patentability of Claims 1 and 10 over the cited art. The Examiner includes a fourth reference, Ness, to support his 103 rejection of Claims 62 - 65. The Examiner asserts Ness discloses a way of attaching "nucleic acids" to a substrate. As noted above, apurinic acid is not a "nucleic acid" and Ness et al do not teach the attachment of a polymeric pyridamic acid to a substrate. Withdrawal of the rejection is requested.

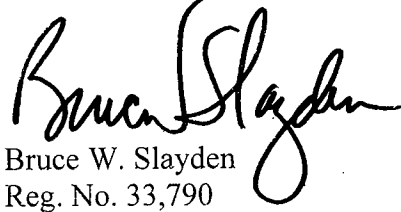
CONCLUSION

Applicant has now made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. Applicant respectfully requests reconsideration of Claims 1- 5, 10 - 14, and 58 - 65.

Applicant believes there are no fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2606.

Respectfully submitted,
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